

Attorney Docket No. P12044-US1
Customer Number 27045

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicant has amended claim 1; claims 23 and 24 have been canceled without prejudice; and claim 26 has been added. Accordingly, claims 1-22 and 25-26 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Claim Rejections – 35 U.S.C. § 112

The examiner rejected claims 23 and 24 under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Solely in order to expedite allowance of this application and to reduce the number of issues for future actions, the Applicant has canceled claims 23 and 24 without prejudice. Therefore, this rejection with respect to these claims is deemed to be moot.

The examiner previously rejected claim 25 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. The Applicant respectfully traverses this rejection.

Specifically, the examiner states that the limitation of a candidate cell being compared with two different thresholds for determining if said candidate cell should be added into an active list introduces new matter. The Applicant respectfully traverses this rejection.

As discussed in previous responses, the Applicant maintains that support for claim 25 can be found throughout the specification. As an illustrative example, however, the Applicant notes that one skilled in the art would know that the various thresholds are functions of the penalties and costs described throughout the specification. Thus, for instance, on page 11, lines 2-12, the specification states:

Thus, if for example the active set at one moment consists of cell A.a only, there is no penalty associated with cells A.b or A.c, since they both belong to the same handover zones as cell A.a. Thus, radio links to those cells can be added if they meet the usual thresholds.

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However, adding cell B.b would mean introducing handover zone 2, and a radio link to this cell is added only if the required threshold is met even after application of the penalty associated with handover zone 2.

The above quotation discusses a situation where cells A.b or Ac are members of a first group and no penalty is applied. Furthermore, "the cells can be added if they meet the usual thresholds." This, of course, refers to a first threshold. The second paragraph discusses a situation where cell B.b is a member of a second group. Cell B.b is only added if it meets "the required threshold" after the application of the penalty, which is a second threshold. Thus, there is support for: determining if the candidate digital cell is a member of the first group; if the candidate digital cell is a member of the first group, then applying a first threshold standard to determine if the candidate digital cell should be added to the active set; if the candidate digital cell is not a member of the first group, then applying a second threshold standard to determine if the candidate digital cell should be added to the active set.

The examiner, however, states that "there is no mention nor a clear indication of two thresholds for determining the claimed subject matter" However, on page 6, lines 27-30, the specification states:

The present invention provides a way of preventing or discouraging handovers which are of relatively high costs, by effectively adjusting the values of these first, second and third thresholds.

Thus, the Applicant respectfully maintains that there is a clear indication of at least two thresholds for determining the claimed subject matter.

The examiner also states "furthermore it is not clearly stated or shown how the required threshold is different or the same when adding links for both cells when making both determinations according to the specification," In response, the Applicant respectfully reminds the examiner that "the purpose of the claims is not to explain the technology or how it works, but to state the legal boundaries of the patent grant." *S3 Inc. v. nVIDIA Corp.*, 259 F3rd. 1364, 59 USPQ2d 1745, 1748 (Fed. Cir. 2001). As stated in the specification at lines 29-31, page 6: ". . . by effectively adjusting the values of these first, second, and third thresholds. This is illustrated first with reference to

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Figure 1." The Applicant, therefore, refers the examiner to the explanation referencing the example of Figure 1 starting at line 32, page 6 to line 13, page 10.

Finally, the examiner states: "and in addition according to the claimed subject matter stating a single candidate digital cell ("the candidate digital cell") if the Applicant is implying two different candidate digital cells based on that which Applicant cites as support for the claimed subject matter in the Specification shown." The Applicant does not understand the point the examiner is trying to make by this phrase and respectfully requests clarification. For a general explanation of the use of candidate cells during a handover process, the Applicant respectfully refers the examiner to the specification, lines 8-26, page 6.

In any event, the Applicant respectfully requests that the §112 rejection with respect to claim 25 be withdrawn.

3.) Claim Rejections – 35 U.S.C. § 102(e)

The examiner rejected claims 1-3, 10-14 and 21-25 under 35 U.S.C. § 102(e) as being anticipated by Haberman, et al. (US 6,035,197). The Applicant respectfully traverses this rejection.

In the last amendment, the Applicant amended the claims to clarify the scope of the present invention. In this response, the Applicant amended the claims to be in a form in accordance with the personal preferences of the current patent attorney.

For discussion, claim 1 is reproduced below:

1. A mobile cellular telecommunications network employing macro-diversity, the network comprising:
a mobile station, wherein the mobile station can establish a plurality of simultaneous radio links with digital cells in the network,
a plurality of digital cells, wherein the digital cells of the network are divided into a plurality of groups, and
wherein, when determining whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link.

In response to the last amendment, the examiner states:

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Haberman et. al. do disclose, show, or suggest dividing digital cells into groups wherein the digital cells can be classified within a MAHO list and a reason for classifying them according to a handoff determination (col. 8., lines 27-32), furthermore Haberman et. al. disclose wherein the digital cells can be digital/analog cells supporting both digital cellular communications and analog cellular communications (col. 7, lines 14-20).

The significance of the last amendment may have not been clear. There is no disagreement that Haberman describes two groups cells: analog and digital. However, nothing in Haberman suggests applying "a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality with which the mobile station does not already have a link."

For instance, the examiner cites Haberman, col. 8, lines 27-32, which is reproduced below:

The handoff of the mobile station 40 from its current digital cell D_2 to the candidate digital cell D_1 involves a mobile-assisted handoff (MAHO) wherein the mobile station 40 receives the pilot signal transmitted by each pilot signal transmitter 51 located in each digital cell 22 which is sufficiently strong to reach the mobile station 40.

However, there is nothing in the above passage that indicates applying "a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality with which the mobile station does not already have a link."

Similarly, the examiner also cites Haberman, col. 7, lines 14-20 which states:

A digital cell 22 supports cellular telecommunication using digitally modulated signals, such as CDMA signals. The digital cells 22 also can be digital/analog cells, which have the capability of supporting both digital cellular communications and analog cellular communications.

Again, the Applicant does not dispute that the digital cells could also have the capability of supporting both digital cellular communications and analog cellular communications. However, the claimed invention is more than simply a grouping of digital cells. There is nothing in the above passage to indicate applying "a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality with which the mobile station does not already have a link."

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When Haberman does suggest applying a quality criterion to a new link, which depends on a group, Haberman teaches that the groups are either digital or analog cells – not a group made of entirely digital cells. For instance, col. 9, lines 33-40 of Haberman states:

If the signal strength of a pilot signal received by the mobile station 40 exceeds Threshold₁, in step S4 the MTSO 30 determines whether the pilot signal is associated with a digital cell 22 or an analog cell 21. Based on the phase offset measurement made by the mobile station 40, the MTSO 30 can identify the pilot signal and its associated base station 11, 12, (i.e., a CDMA base station 12 or an analog base station 11). If the pilot signal is associated with a CDMA digital cell 22, in step S5 the pilot signal offset is denoted by the MTSO 30 as eligible for inclusion in the ACTIVE SET or CANDIDATE SET stored in the mobile station 40.

Additionally, as the examiner has cited previously in Haberman, col. 10, lines 28-32:

If the signal strength of a pilot signal received by the mobile station 40 exceeds Threshold₁, in step S4 the MTSO 30 determines whether the pilot signal is associated with a digital cell 22 or an analog cell 21.

However, nothing in Haberman teaches nor suggests the claim element of claim 1: "wherein, when determining whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link."

Similarly, nothing in Haberman teaches nor suggests the claim element of claims 12, 24 or 25 where "determining if the candidate digital cell is a member of the first group if the candidate digital cell is a member of the first group, then applying a first criterion to determine if the candidate digital cell should be added to the active set; if the candidate digital cell is not a member of the first group, then applying a second criterion to determine if the candidate digital cell should be added to the active set" where the first group is made from digital cells – as opposed to digital and analog cells.

As previously argued, the independent claims now refer to digital cells which are considered in groups. In contrast, Haberman does not divide the digital cells into groups, then make decisions based on the grouping, where the grouping is between

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digital cells. Furthermore, Haberman would have no reason to treat groups made from digital cells differently when making a handover. Thus, as applied to the amended claims, a 102 rejection based on Haberman is not appropriate. The examiner's consideration of the amended claims is respectfully requested.

Claims 2-3, 10-11, 13-14 and 21-22 depend from the amended independent claims and recite further limitations in combination with the novel elements of the independent claims. Therefore, the allowance of the claims dependent is also respectfully requested.

4.) Claim Rejections – 35 U.S.C. § 103(a)

The examiner rejected claims 4 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Haberman in view of Achour, et al. (WO 01/03464). However, the independent claims (which are incorporated into the dependent claims 4 and 15) refer to digital cells are considered in groups. Haberman does not divide the digital cells into groups and determines whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link. Thus, not all claim elements are taught by the combination. As provided in MPEP §2143, "[t]o establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, Haberman would have no motivation to treat groups made from digital cells differently when making a handover. The examiner's consideration of the amended claims is respectfully requested.

The examiner rejected claims 5-7 and 16-18 under 35 U.S.C. § 103(a) as being unpatentable over Haberman in view of Lind, et al. (US 6,163,694). The independent claims (which are incorporated into the dependent claims 5-7 and 16-18) refer to digital cells are considered in groups. Haberman does not divide the digital cells into groups and determines whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link. Thus, not all claim elements are taught

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by the combination. As provided in MPEP §2143, "[t]o establish a prima facie case of obviousness, . the prior art reference (or references when combined) must teach or suggest all the claim limitations." The examiner's consideration of the amended claims is respectfully requested.

The examiner rejected claims 8-9 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Haberman in view of Lind, further in view of Rinne, et al. (US 6,574,473). The claims 8-9 and 19 refer to digital cells are considered in groups. Haberman does not divide the digital cells into groups. Thus, not all claim elements are taught by the combination. Haberman does not divide the digital cells into groups and determines whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link. Thus, not all claim elements are taught by the combination. As provided in MPEP §2143, "[t]o establish a prima facie case of obviousness, . the prior art reference (or references when combined) must teach or suggest all the claim limitations." The examiner's consideration of the amended claims is respectfully requested.

The examiner rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Haberman in view of Rinne. However, claim 20 refers to digital cells are considered in groups. Haberman does not divide the digital cells into groups and determines whether to establish a new radio link between a mobile station and a new digital cell, the network applies a quality criterion to the new link, which depends on whether the new digital cell belongs to any group of the plurality of groups with which the mobile station does not already have a link. Haberman does not divide the digital cells into groups. Thus, not all claim elements are taught by the combination. As provided in MPEP §2143, "[t]o establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations." The examiner's consideration of the amended claims is respectfully requested.

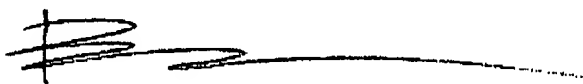
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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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Bill R. Naifeh
Registration No. 44,962

Ericsson Inc.
6300 Legacy Drive, M/S EVR 1-C-11
Plano, Texas 75024

(972) 583-2012
bill.xb.naifeh@ericsson.com